

CLAIMS:

1. A method of operating a distributed computing system of the type having a multitude of distributed applications, each of the applications including a procedural part for executing instructions, and a declarative part including data, the method comprising the steps of:

formatting messages to include processing instructions; and

transmitting the messages to the distributed applications, the transmitted messages causing the applications to implement the processing instructions included in the messages.

2. A method according to Claim 1, wherein:

the formatting step includes the step of providing each message with a timestamp field; and

the transmitting step includes the step of, when each application receives one of the messages, said application entering the time of receipt of the message in the time stamp field of the message.

3. A method according to Claim 2, wherein the transmitting step includes the further step of, when each application receives one of the messages, said application

also entering the time of receipt in a central database accessible to at lease some of the other applications.

4. A method according to Claim 1, wherein the formatting step includes the steps of providing each of the messages with a processor id field and a processor instruction field, and including the processing instructions for the intended recipient processor in the processor instruction field of the message.
5. A method according to Claim 1, wherein:
 - the formatting step includes the step of providing each message with a plurality of fields; and
 - the transmitting step includes the step of, when each application receives one of the messages, the application entering into one of the fields of said one message a unique identification code for the application to indicate that the message has been received by the application.
6. A distributed computing system comprising:

a multitude of distributed applications, each of the applications including a procedural part for executing instructions, and a declarative part including data;

means for formatting messages to include processing instructions; and

transmitting the messages to the distributed applications, wherein the transmitted messages cause the applications to implement the processing instructions included in the messages.

7. A distributed computing system according to Claim 6, wherein:

the formatting means includes means for providing each message with a timestamp field; and

each application includes means for entering the time of receipt of one of the messages, in the time stamp field of the message, when the application receives said one of the messages.

8. A distributed computing system according to Claim 7, wherein each application also includes means for entering, in a central database accessible to at least some of the other applications, the time of receipt of said one of the messages when the application receives said one of the messages.

9. A distributed computing system according to Claim 6, wherein the formatting means includes means for providing each of the messages with a processor id field and a processor instruction field, and wherein the processing

instructions for the intended recipient processor are included in the processor instruction field of the message.

10. A distributed computing system according to Claim 6, wherein:

the formatting means includes means for providing each message with a plurality of fields; and

each application includes means for entering into one of the fields of one of the messages a unique identification code, when the application receives said one of the messages, to indicate that said one of the messages has been received by the application.

11. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps in a distributed computing system of the type having a multitude of distributed applications, each of the applications including a procedural part for executing instructions, and a declarative part including data, the method steps comprising:

formatting messages to include processing instructions; and

transmitting the messages to the distributed applications, the transmitted messages causing the applications to

implement the processing instructions included in the messages.

12. A program storage device according to Claim 11, wherein:

the formatting step includes the step of providing each message with a timestamp field; and

the transmitting step includes the step of, when each application receives one of the messages, said application entering the time of receipt of the message in the time stamp field of the message.

13. A program storage according to Claim 12, wherein the transmitting step includes the further step of, when each application receives one of the messages, said application also entering the time of receipt in a central database accessible to at lease some of the other applications.

14. A program storage device according to Claim 11, wherein the formatting step includes the steps of providing each of the messages with a processor id field and a processor instruction field, and including the processing instructions for the intended recipient processor in the processor instruction field of the message.

15. A program storage device according to Claim 11, wherein:

the formatting step includes the step of providing each message with a plurality of fields; and

the transmitting step includes the step of, when each application receives one of the messages, the application entering into one of the fields of said one message a unique identification code for the application to indicate that the message has been received by the application.

16. A self-routing, self-defining message, for use in a distributed computing system having a multitude of distributed applications, each of the applications including a procedural part for executing instructions and a declarative part including data, said message comprising a data medium tangibly embodying information, readable by the applications and transmittable over a transmission medium to the applications, and identifying a plurality of fields, one of the fields providing instructions for the applications to perform processing decisions.

17. A self-routing, self-defining message according to Claim 16, wherein a second of the fields is a timestamp field for receiving and holding data tangibly embodying information identifying when the message is received by one of the applications.

18. A self-routing, self-defining message according to Claim 16, wherein a second of the fields is a processor id

field for receiving and holding data tangibly embodying information identifying processors that are to receive the message.